

REMARKS

The Examiner has rejected claim 1 under 35 U.S.C. 102(e) as being anticipated by Miller et al (U. S. Publication No. 2001/0021195 A1).

The Examiner states regarding claim 1, Miller et al discloses a communication system (100) comprising:

- one or more gateways (122, 124) coupled to a terrestrial network;
- one or more user terminals or mobile terminals (126, 128), which reads on claimed "subscriber terminals", that is to be coupled to a terrestrial network via a gateway (122, 124) connection or link; and
- a communication satellite (118, 120) providing forward and return communications links between the one or more gateways (122, 124) and the one or more said user terminals, as described in paragraph [0055], comprise a Mobile Telephone Switching Office (MTSO) (112), which reads on claimed "a switching network", that selectively couples signals between selected gateways (122, 124) and selected said user terminals using predetermined satellite communication links (146, 142, 150), which reads on claimed "beams", directing Applicants' attention to paragraphs [0048], [0049].

Applicants respectfully submit that in Miller et al (U. S. Publication No. 2001/0021195 A1) published September 13, 2001 there is disclosed a system and method for increasing user capacity on a slotted random access channel in a spread spectrum communications system by using a multi-part access probe. First and second parts of the access probe are modulated using a short PN code sequence, and the entire access probe is modulated using a long PN code sequence. Information to be transmitted by the access probe is modulated on the second part of the access probe, and the access probe is transmitted so that the first part of the probe falls within the boundaries of an access channel slot. In one embodiment, time slots in access channels used for access signal reception are made the length of the first part. In a further embodiment, time slots in a plurality of adjacent access channels used for access signal reception may be longer than said first part but are offset in time from each other by the length or period of the first part.

Applicants respectfully submit that in [0055] there is stated Fig. 2 illustrates an example implementation of communication links used between a gateway 122 and a user terminal 126 in communication system 100. Two links are employed in communication system 100 to facilitate the transfer of communication signals between gateway 122 and user terminal 126. These links are referred to as a forward link 210 and a reverse link 220.

Forward link 210 handles transmission signals 215 that are transmitted from gateway 122 to user terminal 126. Reverse link 220 handles transmission signals 225 that are transmitted from user terminal 126 to gateway 122.

Applicants respectfully submit that the Examiner has stated a communication satellite (118, 120) providing forward and return communication links between the one or more gateways (122, 124) and the one or more said user terminals, as described in paragraph [0055], comprising mobile telephone switching office (MTSO) (112) which reads on claimed "a switching network" that selectively couples signals between selected gateways (122, 124) and selected said user terminals.... The Examiner, as recited above, goes on to rely on [0048] and [0049] to disclose the claimed beams by Applicants.

Applicants respectfully submit that no where in the Miller et al publication in [0055] and [0048], more specifically in [0055], relating to the communication links between one or more gateways and the one or more user terminals, is there disclosed forward and return communication links between the one or more gateways and the one or more subscriber terminals that each comprise a switching network that selectively couples signals between selected gateways and selected subscriber terminals using predetermined beams as required in claim 1. Applicants respectfully submit that no where in the Miller et al publication are the forward and return communication links disclosed to comprise switching networks that selectively couple signals between the selected gateways and selected subscriber terminals using predetermined beams as required by claim 1. Applicants respectfully conclude that Miller et al is devoid of any disclosure relating to forward and return communication links comprising a switching network that couples in the manner described in the instant claims and accordingly this rejection under 35 U.S.C. 102(e) must fail.

Although Applicants do not necessarily agree that links 146, 142, 150 read on claimed beams, directing Applicants' attention to [0048] and [0049], this does little to cure the deficiency of the switching networks recited above.

The Examiner has rejected claim 2 under 35 U.S.C. 103(a) as being unpatentable over Miller et al (U. S. Publication No. 2001/0021195 A1) in view of Chang et al (U. S. Publication No. 2002/0128045 A1).

The Examiner goes on to state that regarding claim 2 according to claim 1 Miller et al fails to disclose wherein the terrestrial network comprises the Internet.

The Examiner states that Chang et al teaches in paragraph [0043] and in claim 10 that the gateway is coupled to a terrestrial network comprised of the Internet.

Therefore, at the time of the invention, the Examiner concludes, it would have been obvious to a person of ordinary skill in the art to modify Miller et al (U. S. Publication No. 2001/0021195 A1) to include Chang et al (U. S. Publication No. 2002/0128045 A1) in order

to have terrestrial network comprised of the Internet to allow said user terminals accessibility to the Internet for retrieval of global information.

Applicants respectfully submit that in Chang et al (U. S. Publication No. 2002/0128045 A1) published September 12, 2002 there is disclosed a communication system which has a high altitude device having an adaptive antenna with a plurality of main array antenna elements for generating a plurality of communication beams. The system further includes a gateway station coupled to the high altitude device. The gateway station forms a plurality of beams commands by communicating plurality of a control signals to the high altitude device station to form the communication beams.

Applicants respectfully contend that although the Chang et al publication in its disclosure and in claim 10 disclose the use of the Internet in connection with a communication system which has a high altitude device, the system so described in the drawings, the specification and the claims is not analogous to the communication system as described in the Miller et al publication and therefore it is Applicants' position that Chang et al is not properly combinable without relying on Applicants' disclosure to provide the terrestrial network comprising an Internet as required in claim 2. Furthermore, it is Applicants' position that Chang et al does little to cure the deficiencies of the Miller et al publication as recited above which are hereby respectfully incorporated by reference and therefore this rejection fails.

Allowable Subject Matter

The Examiner has objected to claims 3, 5-6, 8-10 as being dependent upon a rejected base claim but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The Examiner goes on to state regarding claim 3, the applied reference fail to disclose or render the obvious, wherein the forward communication link implemented in the communication satellite comprises:

- a plurality of first switches that receive data transmitted from a respective plurality of gateways; one or more forward channel gateway multi-plexers selectively coupled to one of the plurality of first switches;
- a plurality of second switches selectively coupled to outputs of the plurality of first switches and selectively coupled to outputs of the one or more forward channel gateway multi-plexers; and
- one or more regional multi-plexers selectively coupled to the plurality of second switches that output data to a plurality of regions servicing the one or more subscriber terminals.

Further, regarding claim 5, the Examiner states the applied reference fail to disclose or render the obvious, wherein the forward communication link implemented in the communication satellite comprises:

- a first switch for receiving data transmitted from a first gateway; a third switch for receiving data transmitted from a second gateway;
- a forward channel gateway multi-plexer coupled to the first switch;
- a second switch coupled to the first switch and to a first output of the forward channel gateway multi-plexer;
- a fourth switch coupled to the third switch and to a second output of the forward channel gateway multi-plexer;
- a first multi-plexer coupled to the second switch that outputs data to a first plurality of regions; and
- a second multi-plexer coupled to the fourth switch that outputs data to a second plurality of regions.

Regarding claim 6, the Examiner goes on to say the applied reference fail to disclose or render the obvious, wherein the return communication link implemented in the communication satellite comprises:

- one or more regional multi-plexers that receive data transmitted from subscriber terminals located in a plurality of regions;
- a plurality of third switches respectively coupled to the one or more regional multi-plexers;
- one or more return channel gateway multi-plexers selectively coupled to the plurality of third switches; and
- a plurality of fourth switches selectively coupled to the one or more return channel gateway multi-plexers and plurality of third switches that output data to the one or more gateways.

Regarding claim 8, the Examiner goes on to say the applied reference fail to disclose or render the obvious, wherein the return communication link implemented in the communication satellite comprises:

- a first multi-plexer for receiving data transmitted from a first plurality of regions;
- a second multi-plexer for receiving data transmitted from a second plurality of regions;
- a first switch coupled to the first multi-plexer;
- a second switch coupled to the second multi-plexer;
- a return channel gateway multi-plexer selectively coupled to the first and second switches;

- a third switch selectively coupled to the first switch and the return channel gateway multi-plexer that outputs data to a first gateway; and
- a fourth switch coupled to the third switch that outputs data to a second gateway.

Regarding claim 9, the Examiner goes on to say the applied reference fail to disclose or render the obvious, wherein each communication link implemented in the communication satellite comprises:

- one or more first switches that communicate with corresponding gateways;
- one or more gateway multi-plexers coupled to the one or more first switches; one or more second switches selectively coupled to the one or more gateway multi-plexers and selectively coupled to the one or more first switches; and
- one or more regional multi-plexers coupled to the one or more second switches that communicate with plurality of regions.

The Examiner goes on to say claims 4 and 7 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office Action and to include all of the limitations of the base claim and any intervening claims.

Applicants have made the appropriate corrections as required by the Examiner indicating dependency of claim 4 from claim 3 rather than claim 1, and claim 7 depending from claim 6 rather than claim 1.

In addition, Applicants have corrected a typographical error in claim 9.

Applicants respectfully submit that claim 1 is patentably distinguishable over Miller et al with regard to the distinctions recited above regarding switching networks in the forward and return communication links and therefore, although it is gratefully acknowledged by Applicants that claims 3, 5-6 and 8-10 would be allowable if rewritten in independent form as required by the Examiner, this is considered no longer to be necessary since Applicants have successfully distinguished over the Miller et al reference.

In view of the above remarks and amendments, Applicants respectfully submit that all of the claims presently under prosecution have been seen to contain patentable subject matter and to be patentably distinguishable over the prior art of record, the Miller et al publication or Miller et al in view of Chang et al. Accordingly, Applicants respectfully

request that this application be reexamined in view of the above remarks and amendments and that a Notice of Allowance be issued at an early date.

Respectfully submitted,



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